

PROGRAM: Information Technology

**PROGRAM
CIP CODE:** 15.1200

DESCRIPTION: The Information Technology program is designed to prepare students for employment/postsecondary education related to the design, development, installation, implementation, use and management of computers and networks. An integrated approach of teaching and learning is provided to enhance the technical knowledge and skills associated with functions within IT occupations. In addition to the occupation related skills, students completing this program will develop advanced critical thinking, applied academics, interpersonal relations, life management, business, economic, and leadership skills required for the 21st century workplace. The Information Technology program consists of a core curriculum and four areas of specialization for a student to choose from: Option A) Computer Maintenance, Option B) Network Technology, Option C) Software Development, or Option D) Web Page Development. The program uses a delivery system made up of four integral parts: formal/technical instruction, experiential learning, supervised occupational experience, and the Career and Technical Student Organization, SkillsUSA or FBLA.

RECOMMENDED PROGRAM SEQUENCE OF COURSES:

**Career
Preparation
Grades
10-12** The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Career Preparation state-designated Information Technology standards are addressed in this instructional sequence.

15.1200.10 Information Technology Fundamentals: This course introduces principles of computers with an emphasis on basic concepts of computer maintenance, network technology, software development and web page development. While also providing an understanding of the IT industry, computer mathematics and the evolution of the computer.

-and-

One of the four Career Preparation options (.20 or .30 or .40 or .50) will be included as part of the instructional sequence for this program:

Option A
15.1200.20

Computer Maintenance: This option prepares students to apply technical knowledge and skill in PC hardware and software systems with an emphasis on PC repair and maintenance. This option will offer skills necessary to competently perform in the industrial environment, as well as pass the necessary exams to obtain certification.

-or-

Option B
15.1200.30

Network Technology: This option prepares students to apply technical knowledge and skills to install, configure and troubleshoot basic networking hardware, protocols, and services. This option will offer the skills necessary to competently perform in the industrial environment, as well as pass the necessary exams to obtain certification.

-or-

Option C
15.1200.40

Software Development: This option prepares students to apply software theory and programming methods to the solution of business data problems. This option will offer the skills necessary to competently perform in the industrial environment, as well as pass the necessary exams to obtain certification.

-or-

Option D
15.1200.50

Web Page Development: This option prepares students to become familiar with the foundational and basic skills of Internet Technologies, writing code manually, using graphical user interface authoring tools and learning basic infrastructure networking. This option will offer the skills necessary to competently perform in the industrial environment, as well as pass the necessary exams to obtain certification.

And program may elect to add:

15.1200.75 Information Technology - Internship: This course provides CTE students an opportunity to engage in learning through participation in a structured work experience that can be either paid or unpaid and does not necessarily require classroom instruction that involves the application of previously developed Information Technology knowledge and skills.

-or-

15.1200.80 Information Technology - Cooperative Education: This course utilizes cooperative education methodology to combine school-based and supervised work-based learning experiences directly related to the standards identified for the Information Technology program.

TEACHER CERTIFICATION REQUIREMENTS FOR THE INFORMATION TECHNOLOGY PROGRAM

CAREER PREPARATION: The instructor must be CTE certified according to the following table

Information Technology	CERTIFICATES	
	Types: BVT, SVT Approved Areas: ITE, VTT	Types: PVI, SVI, PCTI, SCTI No Approvals Necessary
	CERTIFICATES	
	Types: BVT, SVT Approved Areas: BUS, VDE, VME	Types: PVBM, SVBM, PVB, SVB, PVM, SVM, PCTBM, SCTBM No Approvals Necessary

Note:

- Information Technology, 15.1200.70 may be a part of the sequence and the teacher must hold a Cooperative Education Endorsement (CEN).
- Teacher/Coordinator 15.1200.75 is not required to have a Cooperative Education Endorsement (CEN).
- Teacher/Coordinator 15.1200.80 is required to have a Cooperative Education Endorsement (CEN).

CERTIFICATE ABBREVIATIONS FOR THE INFORMATION TECHNOLOGY PROGRAM

Certificate Types		Approved Areas List	
BVT	Basic Vocational Education	BUS	Business Education
PCTBM	Provisional Career and Technical Education Business and Marketing	ITE	Industrial Technology Education
PCTI	Provisional Career and Technical Education Industrial Technology	VDE	Vocational Distributive Education
PVB	Provisional Vocational Business	VME	Vocational Marketing Education
PVBM	Provisional Vocational Business and Marketing	VTT	Vocational Trade and Technical Education
PVI	Provisional Vocational Industrial Technology		
PVM	Provisional Vocational Marketing		
SCTBM	Standard Career and Technical Education Business and Marketing		
SCTI	Standard Career and Technical Education Industrial Technology		
SVB	Standard Vocational Business		
SVBM	Standard Vocational Business and Marketing		
SVI	Standard Vocational Industrial Technology		
SVM	Standard Vocational Marketing		
SVT	Standard Vocational Education		